

ABSTRACT OF THE DISCLOSURE

A plasma processing apparatus capable of extending a period of maintenance and continuing stable processing is provided. The apparatus comprises a vacuum reactor 1 having a processing gas introduction device and a evacuating device, a shield electrode 14 formed on the outer circumferential wall of the vacuum reactor, and a specimen placing device 101 having an antenna electrode 51 for radiating high frequency power into the vacuum reactor, in which first high frequency power is supplied to the antenna electrode, and high frequency power at a frequency lower than that of the first high frequency power is supplied to the antenna electrode 51 and the shield electrode 15.